IN THE CLAIMS

Please enter the below claim amendments.

1. (previously presented) A method for limiting flow disturbance in an energy efficient manner comprising:

providing a flow merging device;

splitting a first inlet flow at the flow merging device into a first branch and a second branch;

splitting a second inlet flow at the flow merging device into a first branch and a second branch; and

merging the first branches of the first and second inlet flows together; wherein the flows in each of the first branches are substantially parallel at the site of merging.

2. (previously presented) The method according to Claim 1, further comprising merging the second branches of the first and second inlet flows together, wherein the flows in each of the second branches are substantially parallel at the site of merging.

3. (original) The method according to Claim 2, wherein the flow rates in the merged first branches and the merged second branches are substantially equal.

4. (original) The method according to Claim 1, wherein the first inlet flow is a flow of blood.

5. (previously presented) The method according to Claim 4, further comprising directing the flow of the merged first branches to a lung.

6. (previously presented) The method according to Claim 4, further comprising directing the flow of the merged second branches to a lung.

7. (original) The method according to Claim 1, wherein the flow merging device comprises tissue-engineered material.

8. (currently amended) A device for merging at least two inlet flows, and thereafter directing portions of each inlet flow to at least two outlets **in an energy efficient manner**, the device comprising**:**

~~**a merging device to merge the at least two inlet flows such that portions of each inlet flow are merged only when portions of the flows are approximately parallel one another, traveling in the same direction.**~~

a first connection inlet to receive a first liquid flow and guide the first liquid flow toward a first outlet and a second outlet;

a second connection inlet to receive a second liquid flow and guide the second liquid flow toward the first outlet and the second outlet;

a first outlet chamber, in liquid communication with the first outlet, sized and shape to receive a portion of the first liquid flow and a portion of the second liquid flow and merge the flows in a substantially parallel fashion for provision to the first outlet; and

a second outlet chamber, in liquid communication with the second outlet, sized and shape to receive a portion of the first liquid flow and a portion of the second liquid flow and merge the flows in a substantially parallel fashion for provision to the second outlet.

9. (currently amended) The device of Claim 8, wherein the ~~**at least two**~~ **first and second** outlets **are sized and shaped to** have substantially equal flow rates therethrough.

10. (currently amended) The device of Claim 8, wherein the device is for use where at least one of the inlet flows is a flow of blood.

11. (original) The device of Claim 10, wherein at least one of the outlets directs flow to a lung.

12. (original) The device of Claim 8, wherein the device comprises tissue-engineered material.

13. (previously presented) A method for limiting venous blood flow disturbance from the systemic to the pulmonary circulation in an energy efficient manner comprising:

providing a flow merging device;

splitting the IVC flow at the flow merging device into a first branch and a second branch;

splitting the SVC flow at the flow merging device into a first branch and a second branch; and

merging the first branches of the IVC and SVC flows together;

wherein the flows in each of the first branches are substantially parallel at the site of merging.

14. (previously presented) The method according to Claim 13, further comprising merging the second branches of the IVC and SVC flows together, wherein the flows in each of the second branches are substantially parallel at the site of merging.

15. (original) The method according to Claim 14, wherein the flow rates in the merged first branches and the merged second branches are substantially equal.

16. (previously presented) The method according to Claim 14, further comprising directing the flow of the merged first branches to a lung.

17. (previously presented) The method according to Claim 14, further comprising directing the flow of the merged second branches to a lung.

18. (previously presented) The method according to Claim 13, wherein the flow merging device comprises tissue-engineered material.

19. (previously presented) A method of performing a surgical procedure on the heart of a patient comprising:

providing a flow merging device;

splitting the IVC flow at the flow merging device into a first branch and a second branch;

splitting the SVC flow at the flow merging device into a first branch and a second branch; and

merging the first branches of the IVC and SVC flows together; wherein the flows in each of the first branches are substantially parallel at the site of merging.

20. (original) The method according to Claim 19, wherein the flow merging device comprises:

an IVC inlet at which the IVC is connected to the flow merging device;

a SVC inlet at which the SVC is connected to the flow merging device;

a first outlet at which the first branches of the IVC and SVC flows combine; and

a second outlet at which the second branches of the IVC and SVC flows combine.

21. (currently amended) A device for combining the flow of the IVC and the SVC **in an energy efficient manner**, and thereafter directing the combined flow to the lungs, the device comprising:

an IVC inlet at which the IVC is connected, the IVC inlet splitting a portion of the IVC flow between a first branch and a second branch;

a SVC inlet at which the SVC is connected, the SVC inlet splitting a portion of the SVC flow between a first branch and a second branch;

a first **pulmonary** ~~lung~~ outlet at which the first branches of the IVC and SVC flows combine**, the first pulmonary outlet being in liquid communication with a first outlet chamber having opposing curved features that combine the IVC and SVC flows and enable the combined IVC-SVC flows to commonly exit the first lung outlet**; and

a second **pulmonary** ~~lung~~ outlet at which the second branches of the IVC and SVC flows combine**, the second pulmonary outlet being in liquid communication with a second outlet chamber having opposing curved features that combine the IVC and SVC flows and enable the combined IVC-SVC flows to commonly exit the second lung outlet**,

wherein the flows in each of the first branches and second branches are substantially parallel at the sites of combining the flows.

22. (currently amended) A method of using a device for combining the flow of the IVC and the SVC, and thereafter directing the combined flow to the lungs, the method comprising:

providing a device, the device comprising:

an IVC inlet at which the IVC is connected, the IVC inlet splitting a portion of the IVC flow between a first branch and a second branch;

a SVC inlet at which the SVC is connected, the SVC inlet splitting a portion of the SVC flow between a first branch and a second branch;

a first **pulmonary** ~~**lung**~~ outlet at which the first branches of the IVC and SVC flows combine; and

a second **pulmonary** ~~**lung**~~ outlet at which the second branches of the IVC and SVC flows combine,

wherein the flows in each of the first branches and second branches are substantially parallel at the sites of combining the flows;

flowing a liquid through the device; and

using the device *ex vivo*.